North Carolina who were Medicare or Medicaid patients in general hospitals. The data for a few counties near Georgia or Tennessee for which we do not have complete information have been adjusted to account for out-migration, as is pointed out in the notes to Tables 6-9. About 2800 or 0.9 percent of the total of 317,000 federal patient records were missing a residence code, and in these cases the county of location of the hospital (if in North Carolina) was assigned as the county of residence of the patient.

The major factor affecting the choice of diagnoses and procedures for Tables 6-9 (found at the end of this paper) was the number of cases once the data were broken out for 100 counties. There are many diagnostic groups that would be interesting to examine at the state or regional level, such as conditions related to environmental or occupational exposure, but due to small numbers are not feasible to examine across 100 counties. Many patients with alcohol-related conditions are treated in general hospitals, but these conditions are severely under-diagnosed and/or under-reported. Additionally, emphasis was placed on chronic diseases and conditions.

With 20 discharges in the numerator, a discharge rate will have a 95 percent confidence interval as wide as the rate itself. For example, if county A had 20 Medicare discharges for a certain diagnosis out of 2000 medicare enrollees in the county, the measured rate would be 10 discharges per 1000 enrollees for that year. But due to year-to-year variability in rates with small numerators (regardless of the denominator size), one can say only that the underlying (or "true") rate is between 5 and 15 per 1000, with 95 percent certainty. With a numerator smaller than 20 the situation will be worse. Therefore, rates in the following tables with a numerator of less than 20 have been flagged with an asterisk (*) to indicate instability. Some diagnoses shown here have as many as half of the rates flagged (particularly for Medicaid), but it was decided that the unflagged rates would still be useful, and thus these diagnoses were included in the tables.

It should be emphasized that these rates are based on discharges, not persons, and it is estimated that around 25 percent of discharges during a year result from readmissions of the same person (8). The denominator for the Medicare rates is persons enrolled for Medicare hospital insurance, which for North Carolina as a whole on July 1, 1980 was 667,843. Eighty-six percent or 576,746 of these enrollees were aged beneficiaries (age 65 and over), which accounts for 96 percent of the total aged resident population in North Carolina. The other 14 percent of Medicare enrollees are disabled persons. The denominator for the Medicaid rates is persons who were eligible for Medicaid during the fiscal year, which totaled 457,246 statewide for 1980.

Tables 6 and 7 present county discharge rates for Medicare and Medicaid patients for selected principal diagnoses. Less detail was possible for Medicaid because of the small-number problem. Medicare enrollees experienced an overall 367 total discharges per 1000 in 1980, compared to a state rate of 124 for Medicaid eligibles' total discharges. What is striking about these tables are the large differences among counties in hospitalization experience. The total discharge rate for Medicare ranges from 249 in Orange County to 644 in Avery County. It should be recalled that these rates are not adjusted for age or other demographic factors, which do account for part of the differences. The Medicare rates are, however, age-adjusted to an extent since most of these persons are age 65 and over. The total discharge rate for Medicaid eligibles ranges from 49 in Camden County to 251 in Lincoln County.